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OBJECTIVES: To compare technology-specific cost-effectiveness analyses (CEA) submitted as part of health technology assessments (HTA) in France, England and Canada and to highlight the comments, criticisms and conclusions from the HTA agencies in order to assess the feasibility of a unified approach. **METHODS:** Newly published health economic appraisals from the French National Authority for Health (HAS) were reviewed, analyzed and compared to technology appraisals and/or evidence review group (ERG) reports in other countries for the same drugs including sofosbuvir (Sovaldi®), trastuzumab emtansine (Kadcyla®), riociguat (Adempas®) and dolutegravir (Tivicay®). The analysis focused first on the review of methodological approach selected by the manufacturer including model type, time horizon, discount rates, perspective, study population, comparators as well as efficacy, costs and utility data and presentation of results (i.e. total costs and health benefit, incremental cost-effectiveness ratio from both base-case and sensitivity analyses). The analysis then focused on comments made by the agency committees, criticisms and overall conclusions. For each drug, a comparison between models used and agencies' final recommendations was undertaken to highlight convergent and divergent points between countries. **RESULTS:** Results were heterogeneous between drugs which made it difficult to draw a general overarching conclusion. Nevertheless, some points were underlined by every agency. As an example, French, English and Canadian HTA agencies all drew attention to small patient samples and their impacts on the robustness of efficacy data for subgroups in several assessments, which led to uncertainty around estimates of clinical effectiveness and therefore cost-effectiveness. **CONCLUSIONS:** Cost-effectiveness analyses have been introduced in France as part of the assessment of new health technologies two years ago whereas it has been used for about 15 and 20 years in England and Canada respectively. This review highlighted the level of similarities between countries to assess the feasibility of a unified approach to prepare the submission process.

PHP96

REFORMING THE REFORMED - HOSPITAL PHARMACEUTICAL EXPENDITURE IN GREECE OVER THE CRISIS ERA; LOOKING AT WHAT HAS BEEN ACHIEVED WHEN PLANNING AHEAD

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OBJECTIVES: Hospital pharmaceutical expenditure dropped by almost 50% after memorandum measures were first in place. Severe cuts imposed on targets of pharmaceutical expenditure between 2012 and 2014, run parallel to a variety of general reform measures, affecting primary care and non-hospital access to pharmaceuticals. The aim of this study was to isolate main achievements versus other hospital cost-drivers. **METHODS:** End-year 2012-2014 invoiced data from all hospitals in Greece were analysed, in order to examine trends in pharmaceutical versus non-pharmaceutical savings. Non-pharmaceutical savings included costs on appliances, orthopaedics and diagnostics. A separate analysis looked at total pharmaceutical expenditure versus costs of outsourcing services and other expendables such as medical gas and energy supplies. Total expenditure for pharmaceuticals was then compared to volumes in unit boxes for the respective years, in order to examine effectiveness of other reform measures, other than price erosion and discounts/rebates offered such as electronic and INN prescribing. **RESULTS:** Hospital pharmaceutical expenditure dropped by 31% over three years, from €761M in 2012, to €642M in 2013 and €519M in 2014, when respective savings for orthopaedics, healthcare appliances and diagnostics amounting to 6%, 25% and 13% respectively (cumulative 2014 was €508M). Total savings due to outsourcing services and medical and energy supplies reached (-)26% and (-)20% respectively, with an absolute sum of €180M over the three years. Regarding volumes of hospital lines for the three respective years, unit numbers dropped from 84,525,999, to 79,987,535 and 77,075,298 unit-boxes. When calculating pharmaceutical costs, hospitals spent on average €9.00, €8.02 and €6.74 per unit used in 2012, 2013 and 2014 respectively. **CONCLUSIONS:** Significant savings have been achieved for pharmaceuticals in the Greek hospital setting. The cuts were mainly attributable to improved cost/pack ratio, but a notable decrease in units was also observed. Percentage savings in pharmaceuticals were higher than respective savings achieved in other hospital cost-drivers.

PHP97

INTRODUCING ORANGE: AN INTERNATIONAL PRICE REFERENCE TOOL

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OBJECTIVES: International Reference Pricing (IRP) is a key cost-containment method for health care payers. We have developed based on local experts and publically available IRP rules a user-friendly price management tool (Orange) designed to enable the real-time forecasting of the global pricing impact of a branded launched product price change in a single market. The objective of this analysis is to explore, using Orange, the potential impact of price reductions in key EU markets. **METHODS:** Two price datasets were used to illustrate core features of the Orange tool. In the first all prices were set at €10 and in the second (real life dataset) prices were in the range of €1.78-2.86 (highest for UK followed by DE, ES, IT and FR). With each dataset prices were varied for Germany (DE), UK, France (FR), Spain (ES) and Italy (IT). **RESULTS:** A DE price decrease would result in the greatest number of reductions elsewhere. A 10% decrease in DE (on €10) would lead to the same % reduction in FR, Romania (RO), Russia (RU), Slovenia (SI), Croatia (HR) and Luxembourg (LU) and smaller reductions in multiple other countries. A 10% reduction in UK would lead mainly to a 10% decrease in FR, RO and HR. A 10% price reduction in FR would have greatest impact in HR (13%), SI and RU (10%) and in IT it would be FR, RO and RU (10%). Similar impacts were observed for ES. Based on the real life dataset, a 10% decrease DE would lead to a range of reductions across Europe including 16% in Denmark, 12% in Austria, 10% in HR and 5% in Netherlands. **CONCLUSIONS:** Price reductions of branded therapies in any of the key European markets would likely have a significant impact on prices in other markets reducing overall profits for the pharmaceutical industry.

PHP98

TRENDS OF SICK-PAY BENEFITS IN HUNGARY BETWEEN 2005-2013

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OBJECTIVES: As the result of the 2007 economic crisis, the number of employed significantly decreased. In our study we investigated how the number of people entitled for sick-pay, the number of days resorting to sick-pay and the number of sick-leave days in ratio with one sick-pay case changed in this period regarding age groups and genders. **METHODS:** We used the data of the National Health Insurance Fund Administration of Hungary, statistical reports of Nr. OSAP 1514, as well as data of Hungarian Central Statistical Office from the period from the years between 2005 and 2013. We analysed the number of employees entitled for sick-pay, the number of days spent on sick-leave. **RESULTS:** In the period under investigation the number of employees entitled for sick-pay increased from 3.486 to 3.796 thousand people, however, at the same time, the number of sick-pay cases fell from 1,252.000 to 825.000, and the number of days spent on sick-leave generally fell from 30 to 24. Women spent generally 40-56 percent more days on sick-leave which mostly came from childcare. Between the years of 2007 and 2009, people adhering to sick-pay were mostly between the ages of 30-34 (28-21%), while from 2010 between the ages of 35-39 (20%). This is connected to the number of people employed. From 2009, the number of employees significantly increase in the age group 55-59 (2008: 46,2%, 2013:58,4%), and simultaneously the number of people adhering to sick-pay also became higher. **CONCLUSIONS:** Based on the comprehensive analysis of the statistical data we can ascertain that adhering to sick-pay is in close connection with the employment ratio. Furthermore, we can say that in the period after the 2008 economic crisis the number of days spent on sick-leave fell with 35% and the number of days on sick-leave fell with 20%.

PHP99

BIOSIMILARS ENTRY AND PRICE DEVELOPMENT IN EUROPE

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OBJECTIVES: This paper examines the short- and long-run effect of biosimilar entry on price erosion. Furthermore, the impact of increases in the number of competitors on prices of originators is investigated. **METHODS:** A series of explanatory analyses have been performed using an econometric model which was developed for the years 2008–2014 spanning across 10 European countries: Bulgaria, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, and the UK. Two successful biosimilars were considered for the analyses: filgrastim and epoetins. A semi-structured literature review as well as a survey and interviews with country experts have been conducted to understand price dynamics in each market. Prices were obtained from country experts and verified with IMS Health. The model used dynamic panel data analysis, utilising Ordinary Least Squares regression with fixed effects, subjected to a Granger causality test. **RESULTS:** The study assumes that the prices of currently marketed biosimilars define the attractiveness of the market and impact the entry decision of further competitors. This assumption was confirmed for epoetins, where each next biosimilar entrant in the current month leads to a 7% (p=0,0001) price decrease next month, with a long-run sustained effect of 4% (p=0,1806). The entrance of new competitors has the highest impact on price erosion in Bulgaria, Italy and Poland. There is a strong trend indicating that a doubling in the number of competitors leads to about 10% (p=0,1266) decrease in the originator prices in the long-run for filgrastim, with strongest effect in Bulgaria. This effect is insignificant for epoetins (p=0,9694). **CONCLUSIONS:** Biosimilars manufacturers should carefully analyse the number of competitors planning to enter the market when making strategic decisions on the investment in the development of biosimilars.

PHP100

APPRAISING THE COST OF PHYSICIAN VISITS AND TECHNICAL PROCEDURES IN FRANCE IN THE AGE OF OPEN DATA

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OBJECTIVES: In the interest of increasing transparency and access to healthcare utilization data, the French government has published the highly anticipated Open DAMIR database (Dépenses Assurance Maladie Inter-Régimes). The objective of this study was to perform an exploratory analysis of the DAMIR database in order to estimate the mean cost of each type of physician visit and the mean surcharge rate for technical procedures, by specialty, in order to better inform health economic modeling in the French setting. **METHODS:** The DAMIR database consists of monthly extractions of data from the larger French national health insurance limited-access database. We analyzed data collected over a 3-month period (September-November 2014), comprising a total of 98,684,544 outpatient visits and 54,310,532 technical procedures (including outpatient and inpatient procedures, Diagnosis-Related Group billing excepted). Total costs were estimated from the all-payer perspective, in accordance with French guidelines. We calculated mean costs for each type of visit, including surcharges, and the mean surcharge rate for technical procedures for each specialty. **RESULTS:** The three types of visits associated with the highest mean costs were for neurologists (€50.58 per visit), surgeons (€45.74), and psychiatrists (€43.96), whereas the lowest mean costs were for general practitioners (€24.12), nephrologists (€25,58), and geriatricians (€29.58). The highest surcharge rates for technical procedures were billed by surgeons (mean surcharge of +55.6% of the minimum reimburs-